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TRANSMITTAL LETTER FOR PAGE CHANGE FOR OPERATING PROPERLY AND  
SUCCESSFULLY DEMONSTRATION REPORT NTC ORLANDO FL  
7/20/2004  
TETRA TECH



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July 20, 2004

Project Number 7380

Commanding Officer  
Department of the Navy  
SOUTHNAVFACENGCOM  
Atten: Ms. Barbara Nwokike, RPM Code 1873  
P.O. Box 190010  
North Charleston, SC 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888  
Contract Task Order 0271

**Subject: Operating Properly and Successfully (OPS) Demonstration Report for NRL Orlando**

Dear Ms.Nwokike:

Today I spoke with Mr. Greg Fraley with the USEPA regarding the above-listed report. He asked that we make a few minor changes and resubmit the one page affected by this change. Following receipt of this page he will prepare an approval letter for this document.

Enclosed please find two (2) copies of the above-listed page (page 2-2) which should be inserted into your copies of the OPS Demonstration Report for NRL Orlando. Please give one (1) of these to Jeff Meyers. As per your suggestion, I have also sent one (1) copy of this page to Mr. Greg Fraley with the USEPA and one (1) copy to Mr. David Grabka with the FDEP.

I will contact you, Greg, and David next week to confirm receipt of this page and to answer any questions you, or anyone else may have. Please call me at (412) 921-8415 or 1-800-245-2730 if you have any questions regarding this correspondence.

Very truly yours,

Roger A. Clark, Ph.D.  
Task Order Manager

RAC

Attachment

c: Mr. Jeff Meyers (SOUTHDIV)  
Ms. Hope Wilson-Oaks (SOUTHDIV)  
Mr. Gregory Fraley (USEPA)  
Mr. David Grabka (FDEP)  
Mr. Mark Perry (TtNUS)  
Mr. Mark Francis (TtNUS) letter only  
file

above the regulatory action level for arsenic, are naturally occurring and therefore arsenic was determined not to be a concern at the site. Additionally, Harding Lawson Associates (HLA) conducted an extensive soils background investigation at Naval Air Station Cecil Field in Jacksonville, FL and found arsenic in background samples at an average concentration of 2.04 mg/kg. (HLA, Inorganic Background Data Set for NAS Cecil Field, 1998). These values further support that the arsenic concentrations at NRL Orlando are naturally occurring.

Prior to implementing the AS/SVE Treatability Study, project objectives were established that were to be used to gauge the effectiveness of the treatability system. Two remediation objectives of the treatability study were to be able to reduce the concentrations of PCE and 1,1,2,2-TCA in soil to levels below the FDEP leaching potentials. The highest concentration of PCE found during the Phase I investigation was 100 µg/kg (FDEP Leaching Potential is 30 µg/kg) at a depth between 4 to 6 feet bgs in MW3. PCE and 1,1,2,2-TCA were detected above their respective leaching potential levels only in the soil samples collected during installation of one soil boring; MW3. PCE was detected 2-6 ft bgs and 1,1,2,2-TCA was detected at 8 ft bgs. The concentrations of VOCs in the other soil samples were below detection limit or below the leaching potential levels. The VOC-impacted soil appears to be limited to the immediate vicinity of MW3.

One soil sample was collected and analyzed for VOCs after 16 months of operation of the AS/SVE system in the vicinity of MW3 at the same depth of the previously found contamination. This sample was used to evaluate the concentration of contaminants after long-term treatability operations. 1,1,2,2-TCA was not detected at the laboratory reporting limit of 5.8 µg/kg. The FDEP leaching potential at the time this investigation was conducted in 1996 was 0.7 µg/kg, below the reporting limit for this laboratory method. The current FDEP leaching potential is 2.0 µg/kg which is still below the laboratory reporting limit. PCE was detected at 3.2J µg/kg, well below the FDEP leaching potential of 30 µg/kg and two orders of magnitude less than the concentrations found prior to the AS/SVE system installation. It is concluded that the AS/SVE treatability study was effective in meeting project goals for the reduction of soil contamination to concentrations below regulatory action levels. Therefore, no OPS demonstration is necessary for the soil because the soil does not pose an unacceptable risk to human health (TtNUS, 1999a).

## **2.1 GROUNDWATER REMEDIAL SYSTEM - SOURCE**

Construction of the AS/SVE system to treat the area of groundwater contaminant concentrations within the source area was performed by TtNUS for the Navy, in accordance with the Air Sparging/Soil Vapor Extraction (AS/SVE) Treatability Study Work Plan (TtNUS, 1998b). Design parameters for the system were determined by conducting a two phase pilot-scale test. The first phase was used to determine the area of influence of the system. The second phase consisted of the installation and operation of the pilot-